IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BOARD OF PATENT APPEALS AND INTERFERENCES

Appl. No.:	10/798,505	Confirmation No.: 6391
Applicants:	Aoyama et al.	
Filed:	March 11, 2004	
Title:	SYSTEM AND METHOD FOR DISTRIBUTION CHAIN MANAGEMENT	
Art Unit:	3623	
Examiner:	Susanna Meinecke Diaz	
Docket No.:	013645.00005	
Customer No.:	33649	

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ATTENTION: Board of Patent Appeals and Interferences

REQUEST FOR REHEARING UNDER 37 C.F.R. 41.52

Further to the Decision of the Board dated November 17, 2009, Applicants request reconsideration of the matters discussed below, which are believed to have been misapprehended by the Board. This Request is timely filed on January 19, 2010, under the provisions of 37 C.F.R. §§ 1.7 and 1.304(b), because January 17, 2010 fell on a Sunday and January 18, 2010 was a Federal holiday within the District of Columbia (Martin Luther King Day).

Claim 11 includes reverse logistic means for generating transfer data. In FF 02, the Board discusses the flowchart of method 800 for reverse logistics, stating that "Figure 8 contains a series of decision boxes each containing a decision of whether to transfer product and if so, transferring control to a box to generate shipping data."

In FF03, the Board states that there is no "structure or algorithm for generating transfer data disclosed in the discussion of Figure 8 at Specification paragraphs' 0088-93. These paragraphs do discuss generating shipping data, but again without disclosing any structure or algorithm for doing

so." As such, it appears based on the Findings of Fact that the Board may have concluded that neither Figure 8 nor the description of Figure 8 provide structure or algorithm corresponding to the reverse logistic means for generating transfer data.

In FF04, the Board states that the "only disclosed apparatus for generating shipment data or for receiving inventory data is a system for supply chain management," citing to paragraph 0006 of the specification. That paragraph is in the Summary of the Invention section, so it is unclear exactly what structure the Board associates with that paragraph. The Board also states that the "shipping data can be generated by order controller systems, warehouse systems and distribution systems," citing to paragraph 0027 of the specification, which discloses order controller system 102, warehouse systems 108a and 108b and distribution system 110. As such, it appears based on the Findings of Fact that the Board has concluded that the structure corresponding to the reverse logistic means for generating transfer data is order controller system 102, warehouse systems 108a and 108b and distribution system 110.

At page 14 of the Decision on Appeal, lines 13-19, the Board states that they "agree that Fig. 8 portrays an exemplary embodiment of a reverse logistics method," but that the "only disclosure related to generating transfer data is the set of steps labeled as generating shipping data." Nevertheless, the Board repeats the Finding of Fact that the "disclosed structure for generating shipping data is a system for supply chain management that might contain order controller, warehouse or distribution systems for generating such shipping data."

As a preliminary matter, the Appellants note that the Board did not address the Appellants' arguments at pages 6-9 of Appellants' Reply Brief that the claim limitation of reverse logistic means for generating transfer data is governed by the controlling Federal Circuit precedent of *WMS Gaming, Inc. v. Int'l Game Technology*, 184 F.3d 1339, 1349 (Fed. Cir. 1999). Appellants request that the Board address those arguments, which will not be repeated here. Additional explanation of the relevance of those arguments in light of the Findings of Fact and the Analysis by the Board will be addressed.

If the Board has found that the only structure corresponding to the reverse logistic means for generating transfer data is the order controller system 102, warehouse systems 108a and 108b and distribution system 110, then the Board must clarify why such structures satisfy the requirement under *WMS Gaming* that in a means-plus-function claim in which the disclosed structure is a computer, or microprocessor, programmed to carry out an algorithm, the disclosed structure is not

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the general purpose computer, but rather the special purpose computer programmed to perform the disclosed algorithm. It is clear from paragraph 0019 of the specification that these systems can be one or more software systems operating on a general purpose processing platform. It is further clear from paragraphs 0088-93 of the specification that the flowchart algorithm of Figure 8 is drawn to processes implemented by these software systems operating on general purpose processors (e.g. page 26, lines 5-6, "[m]ethod 800 allows an *order controller* and a *supply chain management system* to use *reverse logistics* . . . ,") (emphasis added). The Board has found that the software systems operating on a general purpose processor of order controller system 102 are associated with structure that is used to implement the disclosed algorithm, and there is a clear linkage between those systems and the flowchart algorithm of Figure 8. As such, it appears to be the inescapable conclusion that the Board must find that Figure 8 identifies the corresponding algorithmic structure in the specification.

   If the Board decides that there is no algorithmic structure and that the claim limitation is indefinite, then that decision must be reconciled with the controlling Federal Circuit precedent in *Allvoice Computing v. Nuance Comm.*, 504 F.3d 1236, 1245 (Fed. Cir. 2007), which found that flowchart algorithms provide algorithmic structure. The flowchart algorithm from *Allvoice* was reproduced in Appellants' Reply Brief and will not be reproduced here. Appellants further note that the Federal Circuit specifically referred to that flowchart as "the algorithm represented in Figure 8A." Appellants also set forth the flowchart algorithm of Figure 8 of the pending application in Appellants' Reply Brief, and it is indisputable that there are no substantive differences in the manner in which the Appellants chose to disclose the flowchart algorithm in Figure 8 of the pending application and the manner in which the flowchart algorithm was disclosed in *Allvoice*.[1] If the Board is declining to follow the controlling Federal Circuit precedent of *Allvoice*, that should be clearly stated for the purposes of appeal.

   If the Board finds that the flowchart algorithm of Figure 8 of the pending application does disclose the corresponding structure, then it must find that all three functions of "generate shipping data" at 808, 812 and 816 as well as the three decision functions, namely, 806 "*transfer*

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[1] Appellants note that internal PTO guidance also adopts the convention that an algorithm can be expressed as a flowchart. *See* the memorandum dated September 2, 2008, from John Love, entitled "Indefiniteness rejections under 35 U.S.C. 112, second paragraph," which states at page 3, in the first full paragraph, that "Applicant may express the algorithm in . . . a flow chart." Furthermore, Netwon's Telecom Dictionary, 16th Ed. (2000) defines an algorithm at page 49 as a "prescribed finite set of well-defined rules or processes for the solution fo a problem in a finite number of steps," and defines a flowchart at page 351 as a "graphic or diagram which shows how a complex operation, such

product between warehouses," 810 "*transfer* product to controller" and 814 "*transfer* product from distribution center to warehouse controller" are part of the algorithmic structure corresponding to the claimed reverse logistic means for generating *transfer* data. Only the three decision functions use the term "transfer," and while shipping data is a subset of transfer data in the algorithm of Figure 8, transfer data would also include the negative determination, i.e., a decision *not* to generate transfer data. Put another way, a "yes" determination to **any** of these three decision functions results in generation of shipping data and a "no" determination of **each** of these three decision functions results in no generation of shipping data, and any of those decisions are the generation of "transfer data." As such, these additional functions are clearly part of the corresponding algorithmic structure. Construing the corresponding structure to exclude the functions that connect the three generate shipping data functions would reduce the structure to a single generate shipping data function, which is clearly in error. Furthermore, an algorithm for generating *transfer* data necessarily includes the ability to generate certain types of data, such as a decision to *transfer* product between warehouses, *transfer* product to a controller and to *transfer* product from a distribution center to a warehouse controller, as that data defines the shipping data. Excluding the functions that generate transfer data and connect the three generate shipping data functions would also result in the construction that transferring product between warehouses is the same as transferring product to a controller and transferring product from a distribution center to a warehouse controller, which is clearly in error.

Finally, if the Board finds that the corresponding structure of the reverse logistic means for generating transfer data is the algorithm shown in Figure 8, the Board must also find that Yang fails to disclose that algorithm. While the Board does refer to the flowchart of Figure 8 of the pending application at page 14, line 20 to page 15, line 3 of the Decision on Appeal, it is unclear from the Board's Analysis whether the Board considered the flowchart algorithm of Figure 8 to be corresponding structure, based on the Board's statements discussed above. The Board does state that the algorithmic functions that connect the three different generate shipping data functions were "superfluous to our claim construction analysis," citing to *Med. Instrumentation & Diagnostics Corp. v. Elektra AB*, but not only is that case distinguishable from the facts of this case, that case supports the Appellants' position that it is the algorithm of Figure 8 that provides the corresponding structure. In that case, the Federal Circuit held that the specification of the patents at issue only

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as programming, take place."

disclosed hardware structure relating to the claimed function, and did not disclose software structure. *See, e.g., Medical Instr.*, 344 F.3d at 1215-16 ("Unlike the reference to 'Image Format Conversion' in Figure 1 and the related discussion of 'image format conversion' in the specification, this quoted portion of the specification describes software. . . . The reference to 'image editing' in this discussion of software is insufficient to clearly link software to the converting function. This portion of the specification clearly links software to the claimed function of acquiring and manipulating the images and may therefore appropriately be considered a corresponding structure for those functions. However, MIDCO would have us hold that software is also a corresponding structure for the converting function, even though the reference to software is not clearly linked to the claimed converting function.") As such, the *software* was superfluous to the claim construction issues in that case, which only involved *hardware*, whereas in this case, a clear linkage of the function to the software algorithms is present that is sufficient to associate the claimed function to the disclosed algorithmic structure.

Furthermore, the Federal Circuit's opinion in *Medical Instr.* confirms that the prosecution history should also be relied on to determine what the corresponding structure is. *Medical Instr.*, 344 F.3d at 1210 ("structure disclosed in the specification is 'corresponding' structure only if the specification or *prosecution history* clearly links or associates that structure to the function recited in the claim,") *citing B. Braun Med. Inc. v. Abbott Labs.*, 124 F.3d 1419, 1424 (Fed. Cir. 1997) (emphasis added). While the Appellants do not believe that there is any ambiguity in the corresponding structure based on the claim language, "*reverse logistic* means for generating transfer data," and the disclosure in the specification, "Figure 8 is a flowchart of a method for *reverse logistics* in accordance with an exemplary embodiment of the present invention," as well as other disclosure, to the extent that any ambiguity is believed to exist, the Appellants have clearly linked the structure of Figure 8 to the claimed function in this prosecution history, and that linkage is now of record and must be considered during claim construction. This is not a case like the facts of *Medical Instr.* where the patentee was relying on the disclosure of unrelated software structures as support for the position that the means plus function limitation at issue covered software in addition to the hardware structures disclosed in the specification in that case, but rather a case where the extent of the algorithmic structure is at issue. Excising portions of the disclosed algorithm that include the *ipsis verbis* functional term used in the claimed function to read the remaining structure (which excludes the *ipsis verbis* functional term) on the prior art is an error in claim construction,

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but even with that error, Yang still fails to disclose any algorithm for generating transfer data. In this regard, Yang is like the patent at issue in *Aristocrat Technologies Australia v. International Gaming Technology* (2007-1419) (Fed. Cir. 2008), where the Federal Circuit held that there was no algorithmic structure disclosed, or the patent in *Medical Instr.* where the Federal Circuit held that the disclosed algorithmic structure was unrelated to the claimed function. The only flowcharts in Yang are Figure 5, which is a method for providing set-up information, and Figure 6, which is a method for providing service parts inventory and management. Neither of these flowcharts are clearly linked to a computer-implemented method like Figure 8 of the pending application, and neither of these flowcharts even have the "generate shipping data" function, much less the additional structure that must also be utilized in order to generate transfer data in Figure 8 of the pending application.

Conclusion

In summary, Appellants have shown that 1) controlling Federal Circuit precedent, including *Medical Instr.*, cited by the Board, requires that the disclosed algorithm be considered as the corresponding structure for the subject means plus function limitation, because the disclosed structure is a computer, or microprocessor, programmed to carry out the algorithm, 2) that the *transfer* decision functions connecting the "generate shipping data" functions must also be considered as part of the disclosed algorithm that provides the structure for the reverse logistic means for generating *transfer* data because they control whether or not *transfer* data is generated and which of the three "generate shipping data" functions are used, and that 3) Yang fails to disclose the corresponding structure or an equivalent thereof. Favorable reconsideration of these issues is respectfully requested.

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Respectfully submitted,

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